PARKINSON DISEASE

Amantadine administration is associated with impulse control disorders in PD

Amantadine, a treatment for Parkinson disease (PD), is associated with impulse control disorders (ICDs), according to a cross-sectional analysis by Daniel Weintraub and his international colleagues.

The prevalence of ICDs, which include compulsive gambling, buying, sexual behavior and eating, in patients with PD was recently investigated in a large epidemiological analysis—the DOMINION study. 14% of the sample had one or more ICDs, which were associated with dopamine replacement therapies, including dopamine agonists and levodopa.

The nature of the relationship between ICDs and PD is unclear, and their treatment can vary depending on the overall treatment profile of the patient. A recent small controlled study had indicated that amantadine was beneficial as a treatment for pathological gambling in patients with PD. Weintraub *et al.*, therefore, performed additional analyses on data from the DOMINION study to

specifically assess the relationship between amantadine use and ICDs in such patients.

3,090 patients, nearly all of whom were being treated with one or more anti-PD medications, were recruited from clinics across the USA and Canada, and were interviewed to diagnose four ICDs. For Weintraub's secondary analysis, 3,085 patients provided data, ≈25% of whom were taking amantadine.

The researchers found that 17.6% of amantadine-treated patients had one or more ICDs, compared with 12.4% of those not being treated with amantadine. Amantadine was specifically associated with compulsive gambling, sexual behavior and buying in individual analyses. These associations remained after controlling for possible confounds, including clinical and demographic variables and other PD drugs that were being used in treatment.

Epidemiological data will help to clarify the way in which amantadine influences the development and treatment of ICDs in

© Jjphotos | Dreamstime.com

PD. As Weintraub speculates, “the fact that amantadine has both pro-dopaminergic and antiglutamatergic properties suggests a complex role for it regarding the development and treatment of ICDs.”

Eleanor Beal

Original article Weintraub, D. *et al.* Amantadine use associated with impulse control disorders in Parkinson disease in cross-sectional study. *Ann. Neurol.* doi:10.1002/ana.22164